AMENDMENT

MARKED-UP VERSION OF THE CLAIMS

Please Cancel the original Claims 1-26 and add new Claims 27 - 46.

Claims 1-26 (**Canceled**)

27. (**New**) An antenna alignment system comprising:

at least one antenna having an antenna heading and an antenna elevation angle;

a compass in mechanical cooperation with the antenna, wherein the compass is adapted to provide an antenna heading measurement;

a plumb-to-level transducer in mechanical cooperation with the antenna, wherein the plumb-to-level transducer is adapted to provide an antenna elevation angle measurement;

a compass heading actuator adapted to change the antenna heading;

a plumb-to-level actuator adapted to change the antenna elevation angle;

a remote site; and

an interconnection electrically connecting the compass, the plumb-to-level transducer, the compass heading actuator, and the plumb-to-level actuator, to the remote site,

wherein the remote site includes a desired plumb-to-level value and a desired compass heading value, and wherein the remote site is adapted to cooperate with the compass heading actuator and the plumb-to-level actuator over the interconnection to obtain the desired plumb-to-level value and the desired compass heading value by comparing the desired plumb-to-level value to the antenna elevation angle measurement and desired compass heading value to the antenna heading measurement.

28. (**New**) The system set forth in Claim 27, wherein said antenna resides on a tower.

29. (**New**) The system set forth in Claim 27, wherein plumb-to-level transducer is adapted to measure the antenna attitude with respect to true vertical.

30. (**New**) The system set forth in Claim 27, wherein the compass is adapted to measure the antenna attitude with respect to magnetic north.

31. (**New**) The antenna alignment system of Claim 27, wherein the interconnection includes an interconnection cable.

32. (**New**) The antenna alignment system of Claim 27, wherein the at least one antenna comprises a plurality of antennas, and wherein the plurality of antennas comprises a sector, and wherein the sector defines a sector heading, wherein:

the compass is adapted to provide a sector heading measurement, and the compass heading actuator is adapted to change the sector heading;

the plumb-to-level transducer comprises a plurality of plumb-to-level transducers and the antenna elevation angle comprises a plurality of antenna elevation angles;

each of the plurality of plumb-to-level transducers mechanically cooperates with a respective one of the plurality of antennas to provide a respective plurality of antenna elevation angle measurements;

the plumb-to-level actuator comprises a plurality of plumb-to-level actuators adapted to change the respective one of the antenna elevation angles of the respective one of the plurality of antennas; and

the desired plumb-to-level value comprises a plurality of desired plumb-to-level values, wherein the remote site is adapted to cooperate with the plurality of plumb-to-level actuators over the interconnection to obtain the plurality of desired plumb-to-level values by comparing the plurality of desired plumb-to-level values to the plurality of antenna elevation angle measurements.

33. (**New**) The antenna alignment system of Claim 27, wherein the at least one antenna comprises a plurality of antennas, and wherein the plurality of antennas comprises a sector, and wherein:

the plumb-to-level transducer comprises a plurality of plumb-to-level transducers;

the antenna elevation angle comprises a plurality of antenna elevation angles;

the plumb-to-level actuator comprises a plurality of plumb-to-level actuators;

the desired plumb-to-level value comprises a plurality of desired plumb-to-level values;

the compass comprises a plurality of compasses;

the antenna heading comprises a plurality of antenna headings;

the compass heading actuator comprises a plurality of compass heading actuators; and

the desired compass heading value comprises a plurality of desired compass heading values;

wherein the plurality of plumb-to-level transducers, the plurality of antenna elevation angles, the plurality of plumb-to-level actuators, the plurality of desired plumb-to-level values, the plurality of compasses, the plurality of antenna headings, the plurality of compass heading actuators, and the plurality of desired compass heading values are associated with respective ones of the plurality of antennas, and

wherein the remote site is adapted to cooperate with the plurality of compass heading actuators and the plurality of plumb-to-level actuators over the interconnection to obtain the plurality of desired plumb-to-level values and the plurality of desired compass heading values by comparing the plurality of desired plumb-to-level values to the plurality of antenna elevation angle measurements, and plurality of desired compass heading values to the plurality of antenna heading measurements .

34. (**New**) The antenna alignment system of Claim 27, wherein the interconnection is adapted to carry the antenna heading measurement and the antenna elevation angle measurement from the antenna to the remote site.

35. (**New**) The antenna alignment system of Claim 34, wherein the interconnection is further adapted to carry a power signal to the compass heading actuator and to the plumb-to-level actuator.

36. (**New**) The antenna alignment system of Claim 34, further including a computer interface, wherein the computer interface is adapted to:

provide signals compatible with a computer; and

receive compass heading actuator commands and plumb-to-level actuator commands from the computer.

37. (**New**) The antenna alignment system of Claim 36, wherein the computer interface is adapted to be disconnectably electrically connectable to the computer.

38. (**New**) The antenna alignment system of Claim 36, wherein the computer comprises at least one selected from the group consisting of a laptop computer, a desktop computer, and a mainframe computer.

39. (**New**) The antenna alignment system of Claim 36, wherein the remote site includes a field interconnection box at the base of an antenna tower, and wherein the computer interface resides in the field interconnection box.

40. (**New**) The antenna alignment system of Claim 27, further including computers located at other sites, wherein the interconnection includes a modem for connecting to the other sites.

41. (**New**) The antenna alignment system of Claim 27, wherein the compass comprises an electronic compass.

42. (**New**) The antenna alignment system of Claim 27, wherein:

the antenna heading measurement and the antenna elevation angle measurement are converted to digital signals by an upper field box located proximal to the antenna; and

the digital signals are carried by the interconnect to a lower field box at the remote site.

43. (**New**) A method for adjusting antenna elevation angle and heading for an antenna system including a plumb-to-level actuator and a compass heading actuator, the method comprising:

measuring an antenna elevation angle relative to true vertical to generate an antenna elevation angle measurement;

measuring an antenna heading relative to true magnetic north to generate an antenna heading measurement;

providing the antenna elevation angle measurement and the antenna heading measurement to a remote site over an interconnection;

comparing a desired plumb-to-level value to the antenna elevation angle measurement to generate a plumb-to-level actuator direction;

actuating the plumb-to-level actuator in the plumb-to-level actuator direction;

comparing a desired compass heading value to the antenna heading measurement to generate a compass heading actuator direction; and

actuating the compass heading actuator in the compass heading actuator direction.

44. (**New**) The method of Claim 43, wherein:

comparing a desired plumb-to-level value to the antenna elevation angle measurement comprises executing a program to determine if the antenna elevation angle measurement is within 0.1 degrees of the desired plumb-to-level value; and

comparing a desired compass heading value to the antenna heading measurement comprises executing a program to determine if the antenna heading measurement is within 0.1 degrees of the desired compass heading value.

45. (N w) An antenna heading alignment system comprising:

an antenna having an antenna heading and an antenna elevation angle;

at least one of a group consisting of:

a compass in mechanical cooperation with the antenna, wherein the compass is adapted to provide an antenna heading measurement, and a compass heading actuator adapted to change the antenna heading; and

a plumb-to-level transducer in mechanical cooperation with the antenna, wherein the plumb-to-level transducer is adapted to provide an antenna elevation angle measurement, and a plumb-to-level actuator adapted to change the antenna elevation angle,

a remote site; and

an interconnection between the antenna and the remote site,

wherein the remote site includes at least one of a group consisting of:

a desired plumb-to-level value, wherein the remote site is adapted to cooperate with the plumb-to-level actuator over the interconnection to obtain the desired plumb-to-level value by comparing the desired plumb-to-level value to the antenna elevation angle measurement; and

a desired compass heading value, wherein the remote site is adapted to cooperate with the compass heading actuator over the interconnection to obtain the desired compass heading value by comparing the desired compass heading value to the antenna heading measurement.

46. (New) The antenna heading alignment system of Claim 45, wherein the antenna is a phased array antenna.